Remarks

Reconsideration of this Application is respectfully requested.

Upon entry of the foregoing amendment, claims 71, 74-76, and 79-111 are pending in the application, with claim 71 being the independent claim. The clean and marked-up versions of amended claim 71 are being resubmitted for compliance with 37 CFR 1.121(c)(1)(ii). Entry of the amended claim is respectfully requested.

Support for the amendment of claim 71 can be found in the present specification at page 2, lines 20-24, and page 4, lines 25-27 (9 or 10 amino acids); page 2, lines 22-26 and page 4, lines 23-27 (recited motifs); and page 5, lines 1-11 and page 30, lines 1 and 17 (HPV (human papilloma virus), Plasmodium falciparum (malaria), and the other recited antigens).

Support for the HLA molecules encoded by the "B0701, B3501, B3502, B3503, B5101, B5301, B5401, and CW0601 alleles" of claim 71 is found in the present specification, which states:

> For assays of peptide-HLA interactions (e.g., quantitative binding assays) cells with defined MHC molecules are useful. A large number of cells with defined MHC molecules, particularly MHC class I molecules, are known and readily available. . . . *Table 3 lists some B cell lines suitable for use as sources for HLA-B and HLA-C alleles*, which are particularly *useful in the present invention.*

(Specification at page 9, lines 1-3 and 12-13 (emphasis added).) Further, Table 3 on page 10 lists each of the HLA alleles recited in claim 71.

The Effective Priority Date

Applicants wish to clarify that claims 71, 74-76, 79-83, 88-89, 91-93, 95-97, 99-101, 103-105, 107-109, and 111 are entitled to the benefit of the filing date of Application No. 08/278,634, filed July 21, 1994.

Support in Application No. 08/278,634 for claims 84, 90, 94, 98, 102, 106, and 110 (reciting an HTL epitope) may be found, for example, on page 14, line 29 to page 15, line 12. Therefore, these claims also are entitled to the benefit of the filing date of Application No. 08/278,634, filed July 21, 1994.

However, claims 85-87, which recite the terms leader (signal) sequence, endoplasmic reticulum retention signal, or mRNA stabilization sequence, are not entitled to the benefit of Application No. 08/278,634.

Claims 85-87 are directed to a polynucleotide encoding a peptide comprising a specified motif, wherein the peptide has specified properties, and wherein the polynucleotide also encodes a leader (signal) sequence, an endoplasmic reticulum retention signal, or a mRNA stabilization sequence. The references cited by the Examiner (Sidney et al., *J. Immunology 157*:3480-90 (1996), alone or in combination with WO 93/03764; and Ramensee et al. *Immunogenetics 41*:178-228 (1995), alone or in combination with EP 0346022 A1), do not teach or suggest the subject matter of these claims. Therefore, claims 85-87 are novel and nonobvious over the cited references. Applicants respectfully request reconsideration and withdrawal of the rejection.

Conclusion

All of the stated grounds of objection and rejection have been properly traversed, accommodated, or rendered moot. Applicants believe that the present application is in condition for allowance. If the Examiner believes, for any reason, that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at the number provided.

Prompt and favorable consideration of this Amendment and Reply is respectfully requested.

Respectfully submitted,

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Version with markings to show changes made

In the Claims:

Claim 71 has been amended as follows.

71. (Once amended) An isolated nucleic acid molecule comprising ~~an~~ a nucleotide sequence encoding at least a first ~~discrete~~ peptide consisting of ~~8-11~~ 9 to 10 amino acid residues, wherein said first encoded peptide comprises a motif selected from the group consisting of: (a) a Pro residue at position 2 and a Leu residue at the C-terminal position; (b) a Pro residue at position 2 and a Phe residue at the C-terminal position; (c) a Pro residue at position 2 and a Met residue at the C-terminal position; (d) a Pro residue at position 2 and a Trp residue at the C-terminal position; (e) a Pro residue at position 2 and an Ala residue at the C-terminal position; and (f) a Pro residue at position 2 and a Tyr residue at the C-terminal position; ~~the amino acid at position 2 of said peptide is proline and the C-terminal amino acid residue of said peptide is a hydrophobic amino acid residue and~~ wherein said first encoded peptide binds to at least two of the HLA molecules encoded by B0701, ~~B1401,~~ B3501, B3502, B3503, B5101, B5301, B5401 and ~~CW0602~~ CW0601 alleles; and wherein said first encoded peptide is from an HIV antigen, an HBV antigen, an HCV antigen, an HPV antigen, or a Plasmodium falciparum antigen ~~at IC_{50} values less than 500 nm~~.